

# AIS SPORTS SUPPLEMENT FRAMEWORK

## FISH OIL GROUP B



As a group B supplement, this supplement should only be used under the close supervision of your sports dietitian

Fish oils are sourced from the flesh and skin of oily fish. They are a type of polyunsaturated fatty acid, and a rich source of omega-3's which cannot be made by the body, so must be provided by the diet, or supplements. EPA + DHA are the most important omega-3's and when consumed in adequate amounts may offer benefits for health and performance.

Comes in 2 main forms:

### 'Softgel' capsule



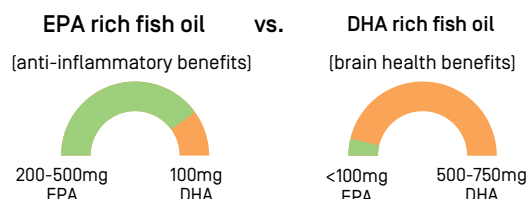
- > 1 capsule = 1000-1800mg total fish oil but EPA & DHA varies
- > Higher strength fish oil may help compliance as less tablets needed for required dose

### Non-capsulated form (liquid)



- > EPA & DHA will vary, usually expressed per tsp (5mL)

Comparison of fish oils:



## BENEFITS & SITUATIONS FOR USE



OVERALL HEALTH  
& WELL BEING



MEMBRANE  
HEALTH  
(muscle, heart, brain)



ANTI-  
INFLAMMATORY



PROTECT  
LEAN MASS

## WHEN TO CONSIDER A FISH OIL SUPPLEMENT

- ✓ Fish not consumed consistently in the diet in amount recommended to prevent deficiency
- ✓ In times of high physiological strain, e.g. heavy training loads with states of inflammation
- ✓ Manage pain related to joint injury
- ✓ During periods of immobilisation or injury in an effort to preserve lean muscle mass and function
- ✓ 'Suboptimal' Omega-3 Index [O3I] score that cannot be corrected with dietary measures



### "Omega 3-Index" [O3I]

Undesirable  
O3I <4%

Intermediate  
O3I 5-8%

Desirable  
O3I 8-12%

The O3I is a validated commercially available service, that involves a finger prick blood test taken at home and sent to an accredited lab for analysis and report.

## HOW MUCH OMEGA-3 DO YOU NEED DAILY?

500-600mg EPA + DHA PER DAY is recommended to prevent deficiency

### OMEGA-3 STATUS

#### UNDESIRABLE

Omega-3 Index [O3I] score <5%  
OR Non-fish eaters (not eating 2-3 serves week)

#### INTERMEDIATE

O3I score [5-8%] OR Irregular fish eaters

#### DESIRABLE

O3I score [>8%] OR Regular/  
weekly fish eaters/ supplement users

### DOSAGE



≥ 1000mg per day EPA + DHA  
= 3 - 4 standard fish oil capsules  
(180mg EPA, 120mg DHA each)



500-600mg per day EPA + DHA in combination with whole foods  
= 2 standard fish oil capsules (180mg EPA, 120mg DHA each)















Maintain 500 - 600mg of EPA + DHA from food/ fish oil consistently.  
THEN a fish oil supplement (1000 - 2000mg EPA + DHA) can be used to  
rapidly increase status for an anti-inflammatory benefit



# FISH OIL

## DIETARY SOURCES OF OMEGA-3's

> Although fish intake is often lacking in a standard western diet, it is possible to achieve an optimal omega-3 intake for general health by eating fish 2 x per week (500 - 600 mg). Higher amounts are required for correcting deficiency and more specific health benefits.

<b>500 mg Omega 3</b>	 Australian Salmon ~180 g	 Fresh or 2x small tins canned sardines ~180 g	 2x small tins or 1 medium tin of salmon/ tuna ~180 g	 Mussels ~100 g	 Mackeral ~180 g	 Rainbow Trout ~180 g
<b>300 - 500 mg Omega 3</b>	 Fresh Tuna ~180 g	 Herring/ Trevally ~180 g	 Calamari ~100 g	 Oysters ~100 g		
<b>&lt; 300 mg Omega 3</b>	 Flathead/Dory/ Australian Bass ~180 g	 Prawns ~100 g	 Scallops ~100 g	 Octopus ~100 g		

## CONCERNS & CONSIDERATIONS



Store in a consistently cool environment (e.g. fridge) to help prevent oxidation and minimise reflux/aftertaste.



Fish oil is sometimes combined in products with antioxidants or vit D. Research is limited, but promising.



Research involving high doses have sometimes reported gut discomfort, although rare.



Algal oil can raise omega-3 status in athletes following a plant-based diet. Batch-tested supplements may be hard to source.



Intakes up to 5g fish oil per day are considered safe and should not affect bleeding risk during or after surgery.



Plant based fats from foods like flaxseed, chia and walnuts contain a plant form of omega-3 that can be converted to EPA, then DHA but at low effectiveness [15%].



All supplements have a doping risk of some kind. Some supplements are riskier than others. Athletes should only use batch-tested supplements. The Sport Integrity Australia app provides a list of more than 400 batch-tested products. ([www.sportintegrity.gov.au/what-we-do/supplements-sport](http://www.sportintegrity.gov.au/what-we-do/supplements-sport)).

While batch-tested products have the lowest risk of a product containing prohibited substances, they cannot offer you a guarantee. Before engaging in supplement use, you should refer to the specific supplement policies of your sport or institute and seek professional advice from an accredited sports dietitian ([www.sportsdietitians.com.au](http://www.sportsdietitians.com.au)). Athletes are reminded that they are responsible for all substances that enter their body under the 'strict liability' rules of the World Anti-Doping Code.